



JFW

PTO/SB/21 (10-07)

Approved for use through 10/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/605,250	
	Filing Date	09/17/2003	
	First Named Inventor	Tzu-Hung Cheng	
	Art Unit	2624	
	Examiner Name	Smith, Jeffrey S	
Total Number of Pages in This Submission	9	Attorney Docket Number	PMXP0159USA

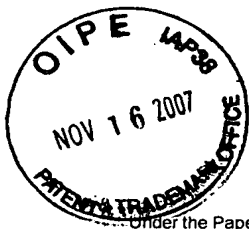
ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	1. A copy of the Front Page of Patent
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	2. Copies of the Filing Receipt
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	3. A copy of the Foreign Priority data showed on public PAIR
<input type="checkbox"/> Reply to Missing Parts/Incomplete Application	<input type="checkbox"/> Landscape Table on CD	4. The Form of PTO/SB/44
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	Remarks Request for Certificate of Correction of Office Mistake	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	North America Intellectual Property Corporation		
Signature	<i>Winston Hsu</i>		
Printed name	Winston Hsu		
Date	NOV 14 2007	Reg. No.	41,526

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:			
Signature	<i>Stephanie Lai</i>		
Typed or printed name	Stephanie Lai	Date	NOV 14 2007

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/17 (10-07)

Approved for use through 06/30/2010. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995 no persons are required to respond to a collection of information unless it displays a valid OMB control number

Effective on 12/08/2004..

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2008

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 0.00

Complete if Known

Application Number	10/605,250
Filing Date	09/17/2003
First Named Inventor	Tzu-Hung Cheng
Examiner Name	Smith, Jeffrey S
Art Unit	2624
Attorney Docket No.	PMXP0159USA

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 50-3105 Deposit Account Name: North America Intellectual Property Corporation

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	310	155	510	255	210	105	
Design	210	105	100	50	130	65	
Plant	210	105	310	155	160	80	
Reissue	310	155	510	255	620	310	
Provisional	210	105	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	210	105
Multiple dependent claims	370	185

Total Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

HP = highest number of total claims paid for, if greater than 20. **Multiple Dependent Claims**

Indep. Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$260 (\$130 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): _____

SUBMITTED BY

Signature	<u>Winston Hsu</u>	Registration No. (Attorney/Agent) 41,526	Telephone 3027291562
Name (Print/Type)	Winston Hsu		Date <u>NOV 14 2007</u>

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : US 7,283,680 B2
Issue Date : Oct. 16, 2007
Inventor : Tzu-Hung Cheng
Docket No.: PMXP0159USA

Title: METHOD FOR IMAGE PROCESSING BY UNSHARP MASKING

To: Commissioner for Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

Subject: Request for Certificate of Correction of Office
Mistake

Dear Sir,

The application number of the Foreign Application Priority Data listed on the front page of the Patent is incorrect (Attachment 1). Documents on record indicate this as an Office mistake of consequence.

The applicant hereby requests that a Certificate of Correction be issued under 37 CFR 1.322 to correct the application number of the Foreign Application Priority Data from "03145390" to "03145390.2" which was correctly listed on the Filing Receipt dated 12/05/2003 (Attachment 2) and the Foreign Priority data showed on public PAIR (Attachment 3).

Respectfully submitted,

Winston Hsu

Date: NOV 14 2007

Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506, Merrifield, VA 22116, U.S.A.

Voice Mail: 302-729-1562

Facsimile: 806-498-6673

e-mail : winstonhsu@naipo.com

(Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan).



US007283680B2

(12) **United States Patent**
Cheng

(10) **Patent No.:** **US 7,283,680 B2**
(45) **Date of Patent:** **Oct. 16, 2007**

(54) **METHOD FOR IMAGE PROCESSING BY UNSHARP MASKING**

(75) Inventor: **Tzu-Hung Cheng, Taipei (TW)**

(73) Assignee: **Primax Electronics Ltd., Neihsu, Taipei (TW)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 869 days.

(21) Appl. No.: **10/605,250**

(22) Filed: **Sep. 17, 2003**

(65) **Prior Publication Data**
US 2005/0008249 A1 Jan. 13, 2005

(30) **Foreign Application Priority Data**
Jul. 7, 2003 (CN) **03 1 45390**

(51) Int. Cl.
G06K 9/40 (2006.01)
H04N 5/21 (2006.01)

(52) U.S. Cl. **382/260; 382/266; 348/625**

(58) **Field of Classification Search** **382/132, 382/260, 263, 264, 266; 348/625**
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,038,388 A * 8/1991 Song 382/266
5,189,511 A * 2/1993 Parulski et al. 358/518
5,231,677 A * 7/1993 Mita et al. 382/266
5,428,456 A * 6/1995 Parulski et al. 386/124
5,805,721 A * 9/1998 Vuylsteke et al. 382/128

5,880,767 A * 3/1999 Liu 347/251
5,912,715 A * 6/1999 Hanai 348/626
6,005,983 A * 12/1999 Anderson et al. 382/254
6,411,305 B1 * 6/2002 Chui 345/660
6,614,944 B1 * 9/2003 Levantovsky 382/261
6,628,842 B1 * 9/2003 Nagao 382/266
6,697,540 B1 * 2/2004 Chen 382/300
6,788,824 B1 * 9/2004 Prestia 382/263
6,965,702 B2 * 11/2005 Gallagher 382/266
6,993,203 B2 * 1/2006 Ozawa et al. 382/257
2004/0176062 A1 * 9/2004 Hsieh 455/221
2006/0039622 A1 * 2/2006 Casale et al. 382/266
2007/0009145 A1 * 1/2007 Winsor et al. 382/132

* cited by examiner

Primary Examiner—Jingge Wu

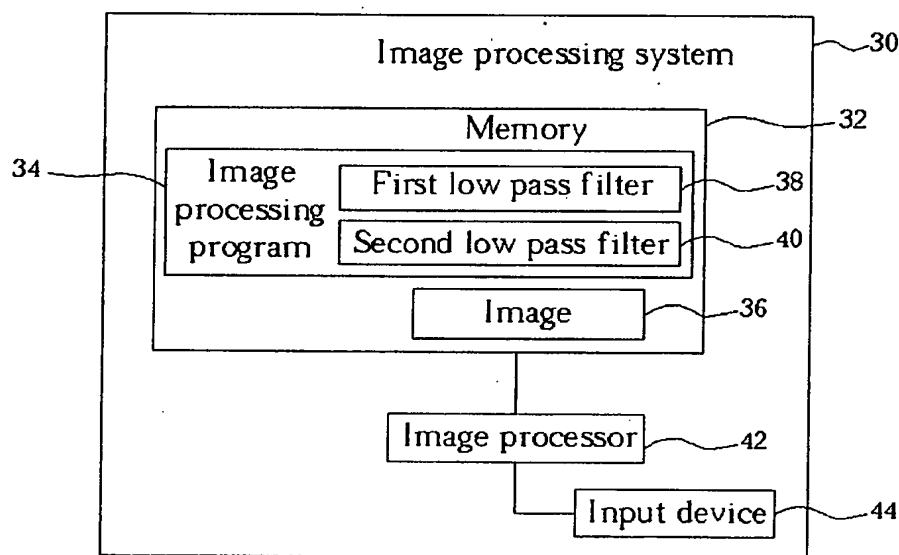
Assistant Examiner—Jeffrey S Smith

(74) *Attorney, Agent, or Firm*—Winston Hsu

(57) **ABSTRACT**

A method for adjusting an image signal by a processor includes providing a first low pass filter and a second low pass filter, generating an energy ratio of a band-pass image signal and the image signal according to the standard deviation of a first low pass signal of the first low pass filter and a second low pass signal of the second low pass filter, providing an image adjustment parameter and generating a weighting coefficient of the image signal according to the energy ratio and the image adjustment parameter, generating a third low pass filter according to the weighting coefficient of the image signal, the image adjustment parameter, the first low pass signal of the first low pass filter and the second low pass signal of the second low pass filter, and adjusting the image signal according to the image signal and the third low pass filter.

20 Claims, 7 Drawing Sheets





UNITED STATES PATENT AND TRADEMARK OFFICE

943036

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/605,250	09/17/2003	2614	750	PMXP0159USA	7	20	2

CONFIRMATION NO. 2249

027765
NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)
P.O. BOX 506
MERRIFIELD, VA 22116

FILING RECEIPT



OC000000011426928

Date Mailed: 12/05/2003

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Tzu-Hung Cheng, Taipei City, TAIWAN;

T. 致伸 萬宗泰 先生

Domestic Priority data as claimed by applicant

US 11272

Foreign Applications

CHINA 03145390.2 07/07/2003

Filing Receipt 1頁!

If Required, Foreign Filing License Granted: 12/04/2003

Projected Publication Date: 01/13/2005

from 永美 高千惠

Non-Publication Request: No

2003/12/24

Early Publication Request: No

Title

METHOD FOR IMAGE PROCESSING BY UNSHARP MASKING

Preliminary Class

348

**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

10/605,250 METHOD FOR IMAGE PROCESSING BY UNSHARP MASKING

11-01-
2007::23:01:14**Foreign Priority**

Country	Priority	Priority Date
CHINA	03145390.2	07-07-2003

[Close Window](#)

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : US 7,283,680 B2

APPLICATION NO.: 10/605,250

ISSUE DATE : Oct. 16, 2007

INVENTOR(S) : Tzu-Hung Cheng

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page, item (30), correct the application number of the Foreign Application Priority Data from "03145390" to "03145390.2"

MAILING ADDRESS OF SENDER (Please do not use customer number below):

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.